National Oceanic Atmospheric Administration (NOAA) announces the open position of **NOAA VDatum Research Associate** in **Silver Spring, Maryland**. Below is a brief description of the internship, and more details can be found on the Environmental Careers Organization website (www.eco.org) under Paid Internships.

**Project Background:**
NOAA's Coast Survey Development Laboratory (CSDL) develops and improves cartographic, hydrographic, and oceanographic systems used by the Coast Survey and the National Ocean Service to provide products and services for the coastal marine community, especially in support of safe and efficient navigation and the utilization and protection of the coast. One of the tools that CSDL develops and distributes is a vertical datum transformation called VDatum. The VDatum tool allows users to transform elevation data (either bathymetric or topographic) among approximately 30 tidal, orthometric and ellipsoidal datums. These transformations are used to integrate data from various sources and create digital elevation models (DEMs).

VDatum is developed for specific geographic areas with the intention that each will form a part of a seamless national VDatum software utility. The Marine Modeling and Analysis Programs (MMAP) branch of CSDL develops the tide models used to compute tidal datums for VDatum. These tidal datums (e.g. mean high water, mean low water, mean sea level) are saved in geospatial arrays and combined with geoidal and ellipsoidal relationships provided by NOAA's National Geodetic Survey (NGS) to enable the necessary transformations to be made in the VDatum software. MMAP oversees the management and standard operating procedures of the VDatum project, which is a collaborative effort among CDSL, NGS, and NOAA's Center for Operational Oceanographic Products and Services (CO-OPS).

**Responsibilities**
Based on the selected applicant's experience, the associate will be involved with one or more steps of the VDatum development process. One key area where the associate could contribute to this process includes the development and testing of unstructured grid meshes to be used by the tide models and their population with water depth values. This component of the VDatum process would allow the associate to learn the SMS software and the methods used in creating grids for numerical simulations. The associate can also work in analyzing the results from the tide simulations to create the tidal datum fields used by the VDatum software. This analysis will also involve using spatial interpolation programs to correct the model results based on available tidal observations. If the associate has experience with hydrodynamic numerical models, they may also work with setting up and running the ADCIRC circulation model of the tides.

The internship position is for at least one year and has a salary range from $36,000 - $38,000 depending on experience.

Applicants must be eligible to work in the United States without an employer sponsored visa and have completed a degree, certificate course, or training program within the last three years of the position start date.

For questions, contact:

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